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# Calspan

## APPLICATIONS OF HCMM SATELLITE DATA

Contract #NAS7-24263

First Quarterly Report

8/23/77-11/23/77

(E78-10033) APPLICATIONS OF HCMM SATELLITE  
DATA Quarterly Report, 23 Aug. - 23 Nov.  
1977 (Calspan Corp., Buffalo, N. Y.) 2 p  
EC AC2/MF AC1 CSCI 05E

N78-12507

Unclas  
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NASA Goddard Space Flight Center  
Greenbelt, Maryland 20771

HCM-006

JWS:jav-7

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### Objectives:

The objectives of this investigation are to study the thermal properties of Great Lakes Erie and Ontario as they relate to water quality, lake hydrology and energy exchange; to study the urban heat island problem in selected areas adjacent to these lakes; and to refine techniques required to obtain accurate surface radiometric temperatures.

### Problems:

No significant problems encountered during this reporting period.

### Accomplishments:

Preliminary efforts have been directed at assessing the utility of the Improved TIROS Operational Satellite (ITOS) Very High Resolution Radiometer (VHRR) as a planning tool in scheduling underflights of the HCMM satellite. Initial (VHRR) results indicate that the ITOS Imagery should be useful in the Great Lakes studies in determining when the thermal bar is forming so that the underflight can be made in conjunction with a subsequent HCMM pass.

Investigations during the next reporting period will continue to evaluate how to best schedule the underflight data to obtain the maximum amount of usable ground truth for the HCMM investigations.

### Significant Results:

The Prelaunch Phase of this investigation is primarily a planning and literature review process. Developments in these areas are proceeding on schedule. Data analysis procedures will be more clearly defined during the next reporting period as HCMM data formats are finalized.

### Publications:

No publications during this reporting period.

### Recommendations:

We would recommend that greater detail on the tape data format be provided to the Principal Investigators as soon as possible.